



GUIDELINE 6

Schools integrate nutrition education and physical activity into their everyday curriculum.

BEST PRACTICES

- ★ The Edible Schoolyard, Berkeley, California
- ★ PATH, New York, New York
- ★ 5-a-Day Power Plus, St Paul, Minnesota
- ★ 24-7 Let's Go!, Troy, New York
- ★ Integrated Nutrition and Physical Activity Program (INPAP)
- ★ Integrate nutrition and physical activity topics into classroom curriculum
- ★ It Just Takes One Brave Teacher, McMinnville, Tennessee

“Our district will continue to move forward simultaneously on both the nutrition and fitness fronts. We believe our success in addressing childhood obesity depends on our ability to affect youngsters’ behaviors. We also focus on communications with the parent, because impacting parental behavior is critical to the ultimate success of our efforts.”

Mike Collins, Westerville School Board member, Franklin County



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By incorporating nutrition education and physical activity into everyday curriculum, schools increasingly will help students to view both nutrition and physical activity as inseparable from the overall academic program and as an integral part of the fabric of everyday curriculum. This will make it easier for students to incorporate both nutrition and physical fitness into everyday life.

OBJECTIVE

School staff and administration will integrate age-appropriate curriculum into all subjects, starting in kindergarten.

By incorporating nutrition and physical education into the overall curriculum beginning in kindergarten, schools will help students see these topics as part of the overall curriculum and, theoretically, begin to incorporate healthy habits into their lives at an early age.

BEST PRACTICES

★ 1. The Edible Schoolyard, Martin Luther King Jr. Middle School, Berkeley, California

Background: Martin Luther King Jr. Middle School has created the Edible Schoolyard, a seed-to-table program. This is a one-acre organic garden, maintained by the sixth-, seventh- and eighth-grade students. The students also cook the food in the Edible Schoolyard Kitchen. This food is then served to the students. The mission of the Edible Schoolyard is to create and sustain an organic garden and landscape that is wholly integrated into the school's curriculum and lunch program.

The integration of this program into the curriculum includes lessons in history, writing, science, math, culture and geography. Students, for example, study food preservation during Neolithic times; keep a journal of experiences and celebrate a Mexican holiday by baking bread.

Duration: The program began in the 1994-95 school year; the first garden was planted during the 1995-96 school year.

Success: According to an April 2003 study, qualitative and quantitative studies were conducted in 2000 and 2001. For these studies, 165 sixth-graders were evaluated, with half in the Martin Luther King Jr. Middle School and the other half in a neighboring school without the Edible Schoolyard program. Based on surveys, interviews with parents, teachers and students, assessments, grades, tests and attendance, the program proved successful. Students in Martin Luther King Jr. Middle School demonstrated greater academic achievement, higher grade point averages and greater understanding of agriculture and ecosystems. Teachers ranked their school as more conducive to learning than those teachers in the school without the Edible Schoolyard.



For more information:

<http://www.edibleschoolyard.org/homepage.html>

<http://www.kristinreisinger.com/nutrition/edibleschoolyard.html>

★ **2. Physical Activity and Teen-age Health (PATH), New York City Schools**

Background: Paul Fardy, Ph.D., a cardiac specialist from the Department of Family, Nutrition and Exercise Science at Queens College, developed the PATH program. This program integrates both physical activity and cardiovascular disease education into the curriculum. For example, in physical education classes, students learn about the benefits of aerobic exercise; learn how to measure their heart rate; and then are given a task to perform. At the end of the task, the students record their heart rate again to observe a change. The program is intended to modify behavior, increase physical activity and reduce the future risk of health problems.

Duration: A pilot study completed in 1988 identified the need for a program integrating physical education and cardiovascular disease education into the curriculum. The study found that 53 percent of 500 high school students had one or more risk factors for cardiovascular disease.

Success: A study in 2004 was conducted on 442 multi-ethnic urban teenage girls. Of the total number of participants, 310 were part of the experimental group, while 132 were in a control group. Included in the program were 12 weeks of exercise and lectures on tobacco use, stress, exercise and nutrition. Testing was performed on the participants both before and after they completed the program. Girls who were a part of the experimental group had better results with blood pressure, body composition and comprehension of heart health information and healthy behaviors.

For more information:

<http://www.nysut.org/newyorkteacher/2000-2001/001108physed.html>

<http://www.ajph.org/cgi/content/abstract/94/9/1538>

★ **3. 5-a-Day Power Plus, St. Paul Public School District, St. Paul, Minnesota**

Background: The 5-a-Day Power Plus program is designed to promote healthy lifestyles among children by encouraging them to eat five servings of fruits and vegetables each day. The students work individually and in teams to establish goals and activities to improve their ability to choose and eat fruits and vegetables. The students learn about a particular fruit or vegetable and then prepare a snack using that item to share with the class.

Duration: The program was established, funded, tested and promoted through the state health department and the University of Minnesota through a four-year research study by the National Cancer Institute.



Success: The 5-a-Day Power Plus program increased fruit and vegetable consumption by a half serving per day and also increased the variety of fruits and vegetables available to students in the cafeteria.

For more information:

http://www.preventioninstitute.org/print/CHI_nutrition.html

✦ **4. 24-7 Let's Go!, Troy, New York**

Background: The 24-7 Let's Go! program was piloted to 5,000 New York state students beginning in March 2005. The program involves having students track seven good health activities that they complete each day. The pilot group of students was provided with a chart as well as various stickers representing physical activity and nutrition. For example, performing a physical activity earns an "action sticker," while the nutritious activity earns a "happy food sticker." Students then place their earned stickers on their charts. The goal is for the students to fill all seven spaces on their charts every day. Teachers are encouraged to engage the students in a physical activity while transitioning between classroom activities.

For more information:

<http://www.nysut.org/247/20050309newyorkteacher.html>

✦ **5. Integrated Nutrition and Physical Activity Program (INPAP)**

Science class focuses on healthy food and scientific descriptions of the ways certain foods help contribute to good health, and how unhealthy foods negatively affect the body. This program is available for elementary grades through high school, adjusting the level of difficulty in the curriculum.

✦ **6. Integrate nutrition and physical activity topics into classroom curriculum**

Science classes include the physiology of exercise and how it affects the body, including how many calories are burned during certain activities.

Math classes use physical activity as a basis for story problems (i.e., running at a speed of x ; walking at a speed of y ; how many calories will you burn if you go two miles?).

✦ **7. It Just Takes One Brave Teacher, McMinnville, Tennessee**

Background: The Warren County school system received a grant in April 2001 to establish a school health team and complete the Centers for Disease Control's (CDC's) School Health Index. A teacher at one Warren school decided she was going to implement many of the CDC's recommendations. She requested that her students be more active, but the majority chose to stay inside and play on



computers. She then motivated her students by bringing in a picture of herself when she was overweight to show the consequence of a lack of physical activity. The students began a walking program and worked harder in the classroom. By the end of the year, she noticed a decrease in discipline problems in the classroom and an increase in student morale and test scores. Her story was published in the local newspaper, and now students in 19 Hickory Creek Elementary school classrooms are walking, with six more planning to begin the program. The teacher also provides her classes with nutrition education.

Success: Many students have reported significant improvements. State achievement scores have increased and overall health has improved. Many students state that they “feel better, sleep better, are sick less and just feel happier.”

For more information:

http://www.actionforhealthykids.org/resources_profile.php?id=226

RESOURCES

Schools can play a role in preventing childhood obesity

The Institute of Medicine addresses the significance of the school environment in preventing childhood obesity. The key points include consumption of food and beverages in school and allowed physical activity.

<http://www.iom.edu>

Action for Healthy Kids

Information on nutrition and physical activity for parents and educators. Includes information on resources, tools, events and programs sponsored by Action for Healthy Kids.

<http://www.actionforhealthykids.org>

Nutrition Explorations

Has a section of resources for parents, educators and school food services. Also includes interactive nutrition games for students.

<http://www.nutritionexplorations.org>

Mid-Atlantic Dairy Association

School nutrition information for teachers. Also includes recipes.

<http://www.dairyspot.com>

Project PA

Project PA, a collaboration between the Pennsylvania State University Department of Nutritional Sciences and the Pennsylvania Department of Education, Division of Food and Nutrition, partners with schools and their communities to provide sound nutrition education and to promote children’s healthy eating behaviors.

<http://nutrition.psu.edu/projectpa>



USDA Kids

This is the U.S. Department of Agriculture's Web site for children, with resources, games, printable coloring books and more.

<http://www.usda.gov/news/usdakids>

Ohio Action for Health Kids Physical Activity Toolkit

A physical activity toolkit provided by Ohio Action for Healthy Kids. It assists parents, community health and fitness organizations, school staff, and local wellness committees with developing and enhancing school physical activity programs. The toolkit gives examples of methods for implementing and improving a physical activity program. It also lists resources for incorporating physical activity into other academic subjects as well as links to sites with lesson plan ideas.

<http://www.childrenshungeralliance.org/AFHK/GOAL3/pakit.pdf>

USDA Food Pyramid

This site helps determine the correct number of servings needed for an individual in each food category, based on the newly revised food pyramid. This interactive Web site helps determine one's correct portions, based on age, sex and level of physical activity. It lists tips and resources for consuming the right number of portions in each food group, as well as a section specifically geared toward elementary-age children. The site also comes with a section for professionals, with resources and information for developing education materials.

<http://www.mypyramid.gov>

Nutrition Decision

This is a fun Web site, with interactive games for adolescents designed to teach nutrition information, label reading and portion size.

<http://www.nutritiondecision.org>

The Responsive Classroom

This Web site contains curriculum and physical activities to promote wellness. The resources provide descriptive educational plans and an assessment tool for determining program effectiveness.

<http://www.responsiveclassroom.org/about/principles.html>

i4 Learning

This tool develops and delivers interactive, innovative, integrated and individualized educational programs that captivate and engage learners. The programs are multidisciplinary, multi-media, interesting, fun and intelligent. These programs also enable teachers and parents to enhance their effectiveness in educating youth and guiding them toward a healthy lifestyle.

<http://www.i4learning.com/>

Centers for Disease Control and Prevention

This is a resource for nutrition and activity issues, highlighting national campaigns such as Kids Walk-to-School and Turn Off Your TV; the site also provides information on body mass index (BMI).

<http://www.cdc.gov/nccdphp/dnpa>